

NEXUS GROUP

PROPERTY TAX CONSULTANTS

December 12, 2008

Mr. Barry Wood
Assessment Division Director
Department of Local Government Finance
Indiana Government Center North
100 N. Senate Ave., N 1058 (B)
Indianapolis, IN 46204

RE: Laporte County 2006 Retrending

Barry:

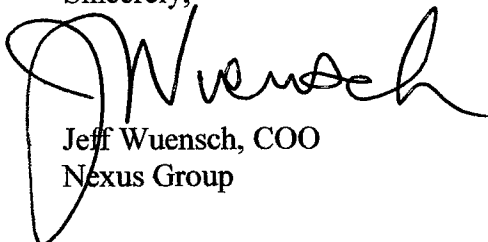
Enclosed please find a variety of materials that were requested during our conference call with the DLGF on December 5, 2008. These materials include:

1. Re-Trending Narrative;
2. Review of IAAO 1999 Standards for Rural Residential Areas (see map of LaPorte County in enclosed CD);
3. Review of Sales Disclosure Databases;
4. Analysis of Neighborhood Counts in 2005 v. 2006;
5. Discussion of Appropriate Strata for Mann-Whitney;
6. Discussion of Parcel Types to Exclude from Mann-Whitney (see sales chasing calculations in enclosed CD);
7. Responses to DLGF checklist for ratio study, along with revised ratio study (see CD);

Please note that revised workbook values will be delivered to your office early next week. The county will be batch costing the 2007 database this weekend.

If you have any specific questions, comments or concerns about the enclosed materials, do not hesitate to contact me directly at 317-753-0005. Thanks again for the opportunity to respond to your questions and concerns.

Sincerely,



Jeff Wuensch, COO
Nexus Group

An Overview of LaPorte County's 2006 Re-trending December 12, 2008

The following steps were taken to conduct the 2006 Re-trending in LaPorte County. These steps were in conjunction with the official Retrending Order (Resolution Number 2008-01), meetings between the Department, the County, and Nexus held on June 24, 2008, and July 21 and 25, 2008, as well as various emails.

Step 1: Reconciliation of Sales Disclosure Database and Cama System

Prior to beginning the re-trending process in LaPorte, all of the sales in AS2, the database submitted to the state for compliancy, were data entered into the county's CAMA system. This step was critical for us to pull all reliable sales data that could be used in the trending process. While sales were being entered into the CAMA system, all sales were re-examined for validity. In some cases previous invalid sales were deemed valid as well as previously valid sales being invalidated. This action resulted in a larger number of valid sales to begin the trending process.

Step 2: Re-Examination of Neighborhoods

Throughout LaPorte County, new neighborhoods were created in lake areas to account for lakefront, lake view and other locations, as well as delineation by house type and age of construction in niche areas with a mix of housing types. Neighborhoods were scrutinized on and around the Lake Michigan area in Michigan Township. In some cases new neighborhoods were created to account for various reasons. While the land values in these areas were very similar in some instances, the homes were selling for vastly different amounts. Special attention was also placed on separating commercial and industrial neighborhoods for land evaluation.

Step 3: Review of Preliminary 2006 Appeal Data & Appraisals

Since the county had begun appeal hearings on the original 2006 assessments, the county was able to acquire a significant amount of data to include in calculating land values, neighborhoods factors, and commercial and industrial values. Most of this data came in the form of appraisals which were thoroughly reviewed by the county, township assessors and Nexus staff. This data was especially helpful with industrial land values and excess residential acreage and front foot rates.

Step 4: Calculation of New Land Values

Rural homesite values and excess residential values were updated and compared to other townships with similar market conditions. (ex. Distance from cities, highways, or industry) to ensure uniformity. Based upon percentage of area classified as Agricultural land, all townships were considered rural except Michigan, Center and Coolspring. Reports for agricultural land under 10 acres and woodland under 10 acres were generated and those parcels were reviewed with the assistance of GIS maps, as well as field inspections. If errors were found, corrections for use type were made. Some of these parcels saw sizable increases and after further market analysis a third tier of residential pricing (after homesites and excess acreage) was created adjusting larger residential parcels to market values. Commercially, major market area land values were reviewed an adjusted

accordingly. Many other commercial and industrial land values were review and adjusted as sales data was available.

Step 5: Calculation of New Residential Factors & Residential Studies

Once the re-trended land was entered into the county's CAMA system, all of the undocumented effective age changes throughout the entire county were undone. With the land now updated to the new 2006 values and the improvements returned to their 2005 values, neighborhood factors were then calculated. In cases where no sales could be found, additional sales (i.e. time adjusted 2003, 2004, or 2006 sales) or factors from similar areas were used to determine factors. In many cases, the residential factors increased significantly as a result of undoing the effective ages from the original trending. No additional review was performed on the rental database containing nearly 700 parcels.

Step 6: Updated Commercial & Industrial Improvement Values

New commercial and industrial cost table updates were the starting point for updating commercial and industrial improvement values. The depreciation year was also changed to 2005 to be consistent with these cost updates. The Nexus Group Construction Cost Index (NCCIsm) was used to update these cost tables, which were approved by the DLGF on September 8, 2008. In addition to the small percentage changes across all use and wall types, some uses were re-examined as a whole (ex. Gas Stations, Fast Food, Mobile Home Parks, and Hotel/Motels.) often resulting in sizeable percentage changes. However, adjustments above and below this average were applied for specific use types where more detailed construction costs were available. These detailed construction cost models have been constructed by Nexus Group and applied uniformly by property class based on specific usage, wall type and other characteristics.

Upon implementing these cost updates, a preliminary ratio study was conducted at the township level for all commercial and industrial parcels. As is the case with all commercial property at times the sale price varied greatly for the assessment. In such cases the sales were verified, owners contacted with regards to personal property, liquor licenses, and franchise fees. In many cases adjustments needed to be made to the stated sales price before assessment reviews could take place. Again each outlier "triggered" a review of similar property with the main similarity being property class and physical location. Some property types had values calculated based on per unit prices and those parcels were adjusted by various means to achieve market values. Again the over all focus was on the bottom line values for each property class.

Additional Step not previously preformed:

*Throughout the creation of land values and neighborhood factors, additional data obtained through the appeal process was utilized. This was especially helpful for industrial land values and for arriving at Excess Frontage influences along Lakeshore Drive.

Addendum on November 20, 2008

After reviewing the Mann-Whitney and Z-test scores at the neighborhood level, some errors, including but not limited to, factors not being applied, depreciation overrides, and duplicate sales, were found. As a result of these findings we have chosen to re-run the ratio study results for the improved residential and vacant residential.

STATE OF INDIANA

DEPARTMENT OF LOCAL GOVERNMENT FINANCE



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September 8, 2008

The Honorable Carol L. McDaniel
LaPorte County Assessor
813 Lincolnway, Suite #201
LaPorte, IN 46350

Dear Ms. McDaniel:

Nexus Group has submitted information to document their commercial and industrial cost table updates. The Department of Local Government Finance (the Department) has reviewed the information submitted, and believes the cost information and documentation meet the requirements of 50 IAC 21-5-2.

Therefore, LaPorte County may proceed with the update and application of this cost information to reflect the January 1, 2005 valuation date for the LaPorte County commercial and industrial properties as it pertains to the 2006 pay 2007 LaPorte County Reassessment Order issued May 23, 2008. Under the public access statutes, any information submitted by LaPorte County or Nexus Group is subject to disclosure.

Please note that Nexus cost tables for residential properties was not supplied and is therefore not included in this review. Please immediately advise the Department which residential cost tables LaPorte County is using.

The Department will review and measure the assessments to ensure uniformity and accuracy.

Thank you for your cooperation in this matter. If you have any further questions, please contact Barry Wood, the Department's Assessment Division Director, directly at (317) 232-3762 or Bwood@dlgf.in.gov.

Sincerely,

A handwritten signature in cursive script, appearing to read "Cheryl A. W. Musgrave".

Cheryl A. W. Musgrave
Commissioner

✓cc: Dr. Frank S. Kelly, Nexus Group

Designation of Some Townships in Laporte County as Small Rural Residential

Table 7 of the IAAO *Standard on Ratio Studies* (1999) at page 34 outlines the suggested Ratio Study Performance Standards. While the standards for central tendency (median) and price-related differential do not vary by property type, the acceptable COD measure does vary by property type. Specifically, the suggested COD standard is 20.0 or less for the following property types:

- rural residential and seasonal properties;
- income-producing properties in smaller urban jurisdictions; and
- vacant land

50 IAC 14-2-1 references the IAAO *Standard on Ratio Studies* (1999) as the sole guidance for the conduct of ratio studies under the guidelines of 50 IAC 14

50 IAC 14-7-1 is perhaps the crux of any confusion as to the exact standard to apply to various property types.

Sec 1.(a) If the coefficient of dispersion falls outside the range specified in the International Association of Assessing Officials standard (15.0 or less for residential improved property, 20.0 or less for all other classes), the county assessor shall direct the township assessor to reassess the class in that township.

However, the IAAO standard expressed in Table 7 is not 15.0 for all residential improved property. This appears to have been a shorthand reference to the standards in Table 7; not meant to modify the COD guidelines to a different meaning than expressed in Table 7.

If indeed the Indiana standard as expressed in 50 IAC 14 is to be the IAAO Standard as expressed in Table 7, then the acceptable COD level for rural residential and seasonal properties, income-producing properties in smaller urban jurisdictions; and vacant land is 20.0 or less, not 15.0 or less.

If that is true and acceptable, then in the instant case of Laporte County, what improved residential areas would be considered as “rural residential”? What objective criteria exist for such a determination?

We would suggest that objective criteria might include the percentage of agricultural parcels as compared to the total parcels in each township. For that measure, higher percentages are indicative of a rural characteristic. Likewise, a similar measure would be the percentage of commercial and industrial parcels as compared to the total parcels in the township. For this measure, lower percentages are indicative of a rural characteristic.

Please reference the attached table. We would suggest that the indicated townships highlighted in **BOLD** be considered as rural residential in nature based on the following:

- High percentage of agricultural properties (20% or more of total parcels): Cass, Clinton, Dewey, Galena, Hanna, Johnson, Kankakee, New Durham, Noble, Prairie, Springfield, Washington, Wills
- Lack of commercial & industrial parcels (5% or less): Hudson, Lincoln, Pleasant, Scipio, Union

Per Table 7 of the IAAO *Standard on Ratio Studies* (1999) at page 34, these townships should be held to a COD measure for the improved residential of 20.0 or less.

The remaining townships (Center, Coolspring and Michigan) would be considered as “older heterogeneous areas” and held to a COD standard of 15.0 or less.

Overview of Sales Database Use in Original & Revised Trending: LaPorte County

I. Original 2006 LaPorte County Trending: Formscan Databases

The basis for sales in the original 2006 LaPorte County trending process and subsequent ratio study was the county's 2004 and 2005 sales disclosures found in the county's Formscan database provided by AS2. This is the same 2004 and 2005 sales database submitted by LaPorte County to the DLGF for compliance purposes. As detailed in the summary page of the original ratio study, a breakdown is provided by township and property class of sales utilized in the ratio study and sales submitted to the DLGF for compliance purposes. The following summarizes this:

| <u>Property Class</u> | <u>Original 2006 Study</u> | <u>DLGF Compliance – Valid Sales</u> |
|------------------------------|-----------------------------------|---|
| Imp. Residential | 2,144 | 2,233 |
| Vac. Residential | 508 | 352 |
| Imp. Commercial | 162 | 62 |
| Vac. Commercial | 13 | 16 |
| Imp. Industrial | 12 | 7 |
| Vac. Industrial | 1 | 2 |
| Total | 2,840 | 2,672 |

The differences between these counts are due to additional review by Nexus Group and the LaPorte County Assessor's office of all 2004 & 2005 sales in the Formscan database. This was done to ensure that LaPorte County utilized all possible valid sales in the trending process and ensuing ratio study. One of three changes may have occurred during this review: 1) previously validated sales were ruled invalid; 2) previously invalidated sales were ruled valid; and 3) Sales classified as "maybe" were ruled either valid or invalid.

2007 LaPorte County Trending: Discovery of Omitted Sales

In the early stages of LaPorte County's 2007 trending process, Nexus Group attempted to reconcile the 2005 and 2006 sales files contained in both Formscan and the county CAMA software (Proval). During this reconciliation, Nexus Group discovered several inconsistencies between the databases as they related to the previously compliant 2005 sales database. In short, there were a significant number of sales marked valid in the Formscan database that were not found in the Proval database.

Revised 2006 LaPorte County Trending: Reconciliation of Formscan & Proval Databases

The discovery of omitted 2005 sales in the 2007 trending process led Nexus Group to revisit all 2004 and 2005 sales found in both the Formscan and Proval databases. Each township assessor, the county

assessor's office and Nexus Group merged sales from Formscan and Proval to identify omitted valid sales in each database. For example, there were a significant number of valid sales in the Proval database (keep in mind that this database was not originally used in the trending process) that were not in the Formscan database and vice versa. Additionally, there were a significant number of sales marked as "maybe" or potentially valid that were examined and marked as valid or invalid. Still more sales, both valid and invalid, may have been discovered through various ways, including taxpayer appeals, and MLS data provided by local realtors. Thus, all additional valid sales included in the revised trending study in LaPorte County were discovered from early January 2007 through October 2008.

New Neighborhoods Created in 2006: LaPorte County

| <u>Neigh #</u> | <u>Twp #</u> | <u># Parcels 2005</u> | <u># Parcels 2006</u> | <u>Created By</u> | <u>Reason</u> |
|----------------|--------------|-----------------------|-----------------------|-------------------|-----------------------------------|
| 92122 | 001 | 0 | 1 | Error | Now in 92431 |
| 994 | 002 | 0 | 1 | Error | Now in 9594 |
| 9443 | 002 | 0 | 20 | Twp | New Subdivision |
| 9487 | 002 | 0 | 14 | Nexus | New Subdivision |
| 9489 | 002 | 0 | 74 | Twp | New Subdivision |
| 9581 | 002 | 0 | 155 | Twp | Industrial |
| 9592 | 002 | 0 | 43 | Unknown | |
| 9594 | 002 | 0 | 117 | Twp | New Lake area |
| 9595 | 002 | 0 | 320 | Twp | New Lake area |
| 9596 | 002 | 0 | 1 | Twp | Only New Home in Old Nbhd |
| 9598 | 002 | 0 | 121 | Nexus | New Condo Subdivision |
| 9952 | 003 | 0 | 61 | Twp | New Subdivision |
| 98133 | 003 | 0 | 40 | Nexus | Separated MH out of 98132 |
| 13441 | 004 | 0 | 112 | Nexus | New Commercial Area |
| 20173 | 006 | 0 | 10 | Nexus | Country Subdivision |
| 20174 | 006 | 0 | 33 | Nexus | New Subdivision |
| 20561 | 006 | 0 | 71 | Nexus | Separated Out Lake Front Parcels |
| 2653 | 008 | 0 | 218 | Nexus | Separated Out Lake Front Parcels |
| 2654 | 008 | 0 | 24 | Nexus | New Subdivision |
| 3253 | 010 | 0 | 32 | Twp | Country Subdivision |
| 3254 | 010 | 0 | 38 | Twp | Country Subdivision |
| 3256 | 010 | 0 | 38 | Twp | Country Subdivision |
| 3257 | 010 | 0 | 30 | Twp | Country Subdivision |
| 3259 | 010 | 0 | 34 | Twp | Country Subdivision |
| 3260 | 010 | 0 | 76 | Twp | Country Subdivision |
| 3261 | 010 | 0 | 38 | Twp | Country Subdivision |
| 3262 | 010 | 0 | 39 | Twp | Country Subdivision |
| 3263 | 010 | 0 | 67 | Twp | Country Subdivision |
| 3264 | 010 | 0 | 71 | Twp | Country Subdivision |
| 3265 | 010 | 0 | 34 | Twp | Country Subdivision |
| 3266 | 010 | 0 | 204 | Twp | Country Subdivision |
| 3267 | 010 | 0 | 93 | Twp | Country Subdivision |
| 3653 | 011 | 0 | 345 | Nexus | Separated Out Lake Front Parcels |
| 36123 | 011 | 0 | 15 | Nexus | Separated Out Lake Front Parcels |
| 160521 | 012 | 0 | 1 | Twp | Only Home in are with LB Sanitary |
| 160523 | 012 | 0 | 27 | Nexus | Separated Out Lake Front Parcels |
| 169009 | 012 | 0 | 4 | Twp | Commercial Area |
| 419525 | 012 | 0 | 3 | Twp | Commercial Area |
| 420524 | 012 | 0 | 624 | Twp | Split Nbhd 420509 |
| 420530 | 012 | 0 | 158 | Twp | Split Nbhd |
| 420531 | 012 | 0 | 394 | Twp | Split Nbhd |
| 420532 | 012 | 0 | 605 | Twp | Split Nbhd |
| 420533 | 012 | 0 | 121 | Twp | Split Nbhd |
| 420534 | 012 | 0 | 525 | Twp | Split Nbhd |
| 420535 | 012 | 0 | 295 | Twp | Split Nbhd |
| 420536 | 012 | 0 | 479 | Twp | Split Nbhd |
| 420537 | 012 | 0 | 662 | Twp | Split Nbhd |
| 420538 | 012 | 0 | 181 | Twp | Split Nbhd |
| 420539 | 012 | 0 | 4 | Twp | New Condo Subdivision |
| 420540 | 012 | 0 | 4 | Twp | Split Condo |

New Neighborhoods Created in 2006: LaPorte County

| <u>Neigh #</u> | <u>Twp #</u> | <u># Parcels 2005</u> | <u># Parcels 2006</u> | <u>Created By</u> | <u>Reason</u> |
|----------------|--------------|-----------------------|-----------------------|-------------------|---|
| 420542 | 012 | 0 | 118 | Twp | Split Nbhd |
| 420580 | 012 | 0 | 5 | Twp | Tryon Farms Subdivision |
| 420581 | 012 | 0 | 1 | Twp | Karwick Apartments |
| 420586 | 012 | 0 | 2 | Unknown | |
| 420587 | 012 | 0 | 1 | Twp | Springland Exception |
| 420590 | 012 | 0 | 7 | Twp | Tryon Farms Subdivision |
| 420591 | 012 | 0 | 2 | Twp | Split Condo |
| 420592 | 012 | 0 | 6 | Twp | Rental Area |
| 420593 | 012 | 0 | 13 | Twp | Commercial Condos |
| 420999 | 012 | 0 | 54 | Twp | All Parcels are Homeowners assn parcels |
| 428000 | 012 | 0 | 169 | Nexus | Nipsco |
| 429001 | 012 | 0 | 1 | Twp | Commercial Area |
| 429010 | 012 | 0 | 67 | Twp | Commercial Area |
| 429101 | 012 | 0 | 2 | Twp | Commercial Area |
| 429201 | 012 | 0 | 8 | Twp | Commercial Area |
| 429568 | 012 | 0 | 3 | Twp | Commercial Area |
| 440535 | 012 | 0 | 143 | Twp | Michiana Flood area |
| 440599 | 012 | 0 | 19 | Twp | Michiana NonBuildable |
| 450589 | 012 | 0 | 10 | Twp | Split out Subdivision |
| 459050 | 012 | 0 | 2 | Twp | Commercial Area |
| 459055 | 012 | 0 | 4 | Twp | Commercial Area |
| 459102 | 012 | 0 | 2 | Twp | Commercial Area |
| 460513 | 012 | 0 | 21 | Twp | Split out Subdivision |
| 469010 | 012 | 0 | 2 | Twp | Commercial Area |
| 470588 | 012 | 0 | 2 | Twp | Sanitary District Exceptions |
| 4205041 | 012 | 0 | 20 | Twp | Split Condo |
| 4205042 | 012 | 0 | 15 | Twp | Split Condo |
| 4205043 | 012 | 0 | 12 | Twp | Split Condo |
| 4205211 | 012 | 0 | 15 | Twp | Split Condo |
| 4205221 | 012 | 0 | 16 | Twp | Split Condo |
| 4205271 | 012 | 0 | 36 | Nexus | Michiana Split By housing type |
| 4205272 | 012 | 0 | 28 | Nexus | Michiana Split By housing type |
| 4205273 | 012 | 0 | 11 | Nexus | Michiana Split By housing type |
| 4205281 | 012 | 0 | 11 | Twp | Split Condo |
| 4205282 | 012 | 0 | 12 | Twp | Split Condo |
| 4205283 | 012 | 0 | 36 | Twp | Split Condo |
| 4205284 | 012 | 0 | 1 | Twp | Split Condo |
| 4205285 | 012 | 0 | 4 | Twp | Split Condo |
| 4205461 | 012 | 0 | 19 | Twp | Split Condo |
| 4205462 | 012 | 0 | 13 | Twp | Split Condo |
| 4205463 | 012 | 0 | 4 | Twp | Split Condo |
| 4205601 | 012 | 0 | 2 | Twp | Split Condo |
| 4205602 | 012 | 0 | 2 | Twp | Split Condo |
| 4205603 | 012 | 0 | 2 | Twp | Split Condo |
| 4205631 | 012 | 0 | 14 | Twp | Split Condo |
| 4205632 | 012 | 0 | 14 | Twp | Split Condo |
| 4205633 | 012 | 0 | 15 | Twp | Split Condo |
| 4405341 | 012 | 0 | 204 | Nexus | Michiana Split By housing type |
| 4405342 | 012 | 0 | 14 | Nexus | Michiana Split By housing type |
| 4405343 | 012 | 0 | 24 | Nexus | Michiana Split By housing type |

New Neighborhoods Created in 2006: LaPorte County

| <u>Neigh #</u> | <u>Twp #</u> | <u># Parcels 2005</u> | <u># Parcels 2006</u> | <u>Created By</u> | <u>Reason</u> |
|----------------|--------------|-----------------------|-----------------------|-------------------|--------------------------------|
| 4405344 | 012 | 0 | 35 | Nexus | Michiana Split By housing type |
| 4405345 | 012 | 0 | 32 | Nexus | Michiana Split By housing type |
| 48143 | 013 | 0 | 39 | Twp | New Subdivision |
| 65552 | 018 | 0 | 74 | Nexus | Michiana Split By housing type |
| 65553 | 018 | 0 | 6 | Nexus | Michiana Split By housing type |
| 66512 | 018 | 0 | 39 | Nexus | Michiana Split By housing type |
| 66513 | 018 | 0 | 16 | Nexus | Michiana Split By housing type |
| 7052 | 019 | 0 | 33 | Twp | Rural Front Foot homes |
| 7552 | 019 | 0 | 98 | Twp | New Subdivision |
| 78133 | 021 | 0 | 26 | Nexus | Split out Subdivision |

Selection of Appropriate Strata for the Mann-Whitney Test

The initial selection of the appropriate strata for the conduct of the Mann-Whitney tests appears paramount. Results from the test would be suspect if various non-complimentary strata were combined in the same analysis.

For applications of the need for appropriate strata, one can reference:

- Gloudemans (1999, *Mass Appraisal of Real Property*) and the IAAO *Standard on Mass Appraisal of Real Property* (2008). At 4.1 in the discussion of valuation models, the standard notes that, “Subareas or neighborhoods can serve as variables in modeling ...”. Later in the same section, the standard notes that, “Commercial and income-producing properties should be stratified by property type.”

Thus it would seem clear at this point that the IAAO supports stratification by property type; commercial, industrial, exempt and/or agricultural property types should not be considered in the same analysis with residential property.

- The IAAO *Standard on Mass Appraisal of Real Property* (2008) goes on to discuss the valuation of non-agricultural land. At 4.6.4 the Standard notes that, “The sales comparison approach is the preferred approach for non-agricultural land. Likewise, the Standard notes that the same approach is most applicable for single family residential property.

However, if the sales (and inherent rates of change) driving values for land differ from those affecting single family improved residential property, then the ability to combine such strata in a single Mann-Whitney analysis is questionable.

Gloudemans appears to support this type of stratification. (see: https://www.spss.com/pdfs/mass_valuation_with_spss.pdf) On page 9, Gloudemans writes that, “Assessors typically use additive models for detached residential properties and multiplicative models for land.” Clearly, if the multiple regression models being used to ascertain single family residential properties differ in type from those being used to value land, then the processes affecting the two types of properties differ in a meaningful way. Combining the resulting rates of value change in vacant residential land with those of improved residential property ignores this fundamental difference.

The impact is significant and meaningful. Consider for example a neighborhood where residential land values have increased by 100% since the last valuation date, but improved residential properties have increased in value only 20%. If the number of vacant parcels is relatively small in comparison with that of improved parcels, then the results of a Mann-Whitney analysis will be skewed in a predictable manner.

Suppose, we have 10 vacant residential parcels and 100 improved residential parcels. Three sales occur in each group along the pattern discussed above and the remaining similar unsold parcels have assessments changed accordingly. The net result is that sold parcels will increase by an average of 60% (one-half are increasing in assessment by 100%, the other one-half increase by 20%). Unsold parcels on the other hand increase in assessment by only $\{(7 * 100\%) + (97 * 20\%) \} / (7 + 97) = 25.38\%$. The apparent vast difference in percentage change between sold and unsold is a direct result of the (incorrect) strata selection

As the simple example illustrates, by improperly combining the two strata when the underlying rates of change differ, we have found “sales chasing” when in fact, only proper adjustments have been made. All the vacant residential property (sold and unsold) have increased in assessment by 100%, and all the improved residential property (sold and unsold) have increased in assessment by 20%.

Fortunately, no need for debate on strata needs to occur at this juncture. Appropriate and applicable strata have already been developed and codified in Indiana. 50 IAC 14-5-1 states that ratio studies shall be conducted for seven (7) defined property classes. Those separate defined property classes are: improved residential, unimproved residential, improved commercial, unimproved commercial, improved industrial, unimproved industrial and agricultural land. Therefore, it seems clear that the Department of Local Government Finance has already ascertained the appropriate strata for ratio studies, and hence all other associated statistical tests of ratio study data, by the issuance of 50 IAC 14. If the intent of the Department was to combine all property classes, or even all residential property (vacant and improved) into a single strata for analysis, then the classes recognized here would not exist.

Based on this, it seems clear that not only is the combination of multiple property classes (commercial property, vacant residential, improved residential, etc.) not supported by industry standards, it is not supported by the Department’s own standards as expressed in 50 IAC 14.

Exclusion of Certain Parcels from Mann-Whitney Analysis

In an effort to fairly evaluate the 2006 pay 2007 preliminary re-trended assessments for LaPorte County, an imperative step appears to be a review and consideration/exclusion from the Mann-Whitney analysis of parcels with certain types of assessment changes are not based on the annual adjustment procedure.

The list and rationale includes the following types of parcels:

- **Parcels that did not exist in either 2005 pay 2006 or 2006 pay 2007**

Reasoning: Splits that occur after the 2005 assessment cycle would lead to a new parcel being created. Since that new parcel existing and assessed in 2006 would have no comparable value from 2005, then a comparison of the rate of change in assessment is not possible. Likewise, a parcel would exist in 2005 but not in 2006 in cases of combinations of parcels. Again, a comparison of the rate of change in assessment is not possible.

- **New construction as evidenced either by any new feature added in 2006, increase in the percentage completion, or permit or similar note in the MEMO. There could have been new construction that resulted in the addition of air conditioning, update to grade, effective age, condition, etc.**

Reasoning: Although an assessment would exist in both time periods (2005 and 2006), there would not be a comparable basis between the two assessments.

- **Demolition – removal of features or similar permit**

Reasoning: Although an assessment would exist in both time periods (2005 and 2006), there would not be a comparable basis between the two assessments.

- **Change in class code into or out of improved residential.**

Reasoning: Assuming that the Mann-Whitney test is being conducted only on improved residential parcels, if the parcel in question was an improved residential parcel in only one time period (2005 or 2006), then the assessments would not be comparable. Aside from new construction / demolition activity, this would further incorporate parcels that were mis-assessed as commercial in one of the time frames, or were otherwise re-configured by the existing owner. This falls in line with activities associated with general reassessment.

- **Change of neighborhood.**

Reasoning: This is not intended to impact parcels with a simple change in neighborhood code. Rather, it appears that parcels which were removed from one grouping of parcels (ie. neighborhood or market area) in the 2005 assessment data and then re-grouped in 2006 with different parcels would have non-comparable assessment changes between the

two time frames. Such a change may result in vastly different land assessments on these particular parcels (whereas the majority of parcels in the group without such changes would have dis-similar rates of change), and/or vastly different market adjustment factors being applied to improvements as compared to the prior year. This falls in line with activities associated with general reassessment.

- **Change of land pricing technique (FF to acreage or vice versa).**

Reasoning: If all parcels in the neighborhood were changed in land pricing technique, then this would not be applicable. However, if a subset of parcels were reassessed in 2006 and changed from a front foot (FF) assessment basis to an acreage basis (or vice versa), then the two assessments are no longer comparable for the purposes of determining of sold and unsold parcels are changing at the same rate. This is because the rate of change for such parcels is based not on a trending element, but rather on a subjective change to assessment technique. This falls in line with activities associated with general reassessment.

- **Change in influence rate on the land from 2005 to 2006.**

Reasoning: Similar concept to the above. If the land pricing technique in 2005 involved the application of some influence factor to some parcels in the neighborhood, and in 2006 the land pricing technique employed no longer involved such an influence factor (or the influence factor changed), then the two assessments are no longer comparable for the purposes of determining of sold and unsold parcels are changing at the same rate. This is because the rate of change for such parcels is based not on a trending element, but rather on a subjective change to assessment technique. This falls in line with activities associated with general reassessment. This any change in influence factor on parcels between the two time periods appears to invalidate the parcel from consideration in a Mann-Whitney analysis.

- **Rentals- as this was establishing a new assessing technique**

Reasoning: If the parcel were classified as a “rental” in 2006 when such a classification did not exist in 2005, then the change in assessment technique makes the assessments in 2005 and 2006 non-comparable. This falls in line with activities associated with general reassessment. All parcels in the rental database would be excluded from consideration in the Mann-Whitney test.

- **Parcels that were appealed and received either a local TWP and/or PTABOA decision affecting the assessment in either 2005 and/or 2006.**

Reasoning: If the parcel were appealed in 2006, resulting in a change of assessment based on the opinion of value by the township assessor and/or PTABOA, then the rate of change in the assessment between 2005 and 2006 is no longer based on the annual adjustment procedure, but rather on the specific parcel information provided. This would constitute an “override” in the system in some cases, or a change to one of the subjective assessment

elements (land influence, grade, effective age, condition and/or OBS). This falls in line with activities associated with general reassessment. All parcels that were successfully appealed in 2006 would be excluded from consideration in the Mann-Whitney test.

- **Parcels that were appealed, received either a local (TWP) and/or PTABOA decision in prior time periods for which the 2005 assessment was still affected by such an assessment up until a change for 2006.**

Reasoning: If the parcel were appealed in any time period and the change in assessment was still in effect in 2005, and if the “override” or similar technique was removed for the 2006 assessment, the resulting rate of change in the assessment between 2005 and 2006 is no longer based on the annual adjustment procedure, but rather on the specific parcel information provided. The removal of factors emanating from a prior appeal would fall in line with activities associated with general reassessment. All parcels for which such prior appeal information was removed for 2006 would be excluded from consideration in the Mann-Whitney test.

- **Parcels where the grade / effective age / condition and/or OBS were changed for 2006 from the 2005 value.**

Reasoning: This would evidence some type of field reassessment by either the township assessor or county assessor with documentation. Nexus Group un-did all such similar changes that were un-documented (absent field reviews).

Response to DLGF Ratio Study Checklist & Other Issues

December 12, 2008

Back-up documentation was missing for the following:

- Grade and Condition rating: This is primarily for commercial and industrial parcels and will be included in a re-submission of the ratio study by December 18th. To expedite the review of the ratio study and other documents, this work still needs to be completed.
- Sales/Parcel Data and List of Sales: This relates to the workbook values and the inclusion of all parcels (sold and unsold), which are being re-created and will also be re-submitted by December 18th.

Other:

- Residential Improved:
 - o COD issues: The DLGF notes that for 8 townships: Cass, Dewey, Galena, Kankakee, Lincoln, New Durham, Prairie, and Springfield the COD was outside acceptable IAAO standards (each had a COD higher than 15.0 but less than 20.0). The IAAO standards indicate that for rural residential properties the maximum COD limit is 20.0. Each of these townships can be categorized as having rural residential parcels and therefore would be within IAAO Standards.
 - o Duplicate issues: The DLGF notes that for 4 townships: Center, Coolspring, Michigan, and Pleasant there are instances of duplicate sales in the ratio study. As the DLGF also notes, when those duplicates are removed, no material effect is evidenced in the reported statistics. These duplicates have been removed from a revised version of the ratio study.
 - o PRD issues: The DLGF notes that for 2 townships: Michigan and New Durham the PRD is at 1.03 which is at the upper boundary of IAAO standards. We have extended the PRD value to 3 decimal places and have revised data for any township whose PRD exceeds 1.030.
- Vacant Residential:
 - o COD issue: The DLGF notes that for Washington Township the COD is at the high end or above the IAAO standards. However, the maximum boundary for vacant residential parcels in the IAAO standards is 20.0, which is higher than the reported COD of 19.80 for Washington Township.
 - o Duplicate issue: The DLGF notes that for Coolspring Township there are instances of duplicate sales in the ratio study. As the DLGF also notes, when those duplicates are removed, no material effect is evidenced in the reported

statistics. These duplicates have been removed from a revised version of the ratio study.

- PRD issues: The DLGF notes that for 3 townships: Center, Lincoln, and Michigan the PRD is at 1.03 which is at the upper boundary of IAAO standards. We have extended the PRD value to 3 decimal places and have revised data for any township whose PRD exceeds 1.030.
- Commercial Improved:
 - COD issue: The DLGF notes that for Center Township the COD is 18.90 which is at the high end or above the IAAO standards. Nexus Group has reviewed the commercial parcels in this township in order to determine the appropriate course of action to remedy the high COD. This portion of the ratio study has been revised.

Mann-Whitney Test

The DLGF identified 34 neighborhoods that failed the Mann-Whitney test. These neighborhoods were tested using all valid sales from property class code 300 to 599 (commercial, industrial, vacant and improved residential classes). The 4 townships where the most concentrated instances of Mann-Whitney failures are noted as Center, Coolspring, Galena, and Michigan Townships (17 neighborhoods), and the DLGF further urges the county to focus correction efforts on these four townships. The neighborhoods in these 4 townships that have failed the Mann-Whitney test must be corrected in order for the ratio study to be approved.

Nexus Group has provided documentation illustrating the appropriateness of stratifying property class types within a neighborhood when conducting the Mann-Whitney test. Therefore, Nexus Group has conducted the Mann-Whitney test on these same neighborhoods including only improved residential parcels (classes 510 to 599). As a result, 9 of the 17 neighborhoods originally failing the DLGF test have passed the Mann-Whitney test. Additionally, Nexus Group has provided documentation illustrating the appropriateness of eliminating certain types of assessed value changes from the sample. When the Mann-Whitney test is computed with the removal of these types of parcels, all 17 neighborhoods pass the Mann-Whitney test or have a sample size smaller than 5 sales.

Addition and Removal of sales for the revised ratio study

Due to the existence of multiple sales disclosure databases for the 2005-2006 sales, the location of additional sales, and the review for validity those sales previously considered 'maybe', the sales datasets used for the original 2006 and the revised 2006 ratio studies were comprised of considerably different parcels. At the outset of the LaPorte County re-trending process, Nexus Group examined and data-entered every sale for the time period included in the 2006 trending process.

Over-stratification

For assessment year 2005 pay 2006, there were 49 neighborhoods that contained less than 4 parcels. In 2006 pay 2007, after deletion of some old neighborhoods and creation of new neighborhoods, there was a net increase of 17 neighborhoods. Two neighborhoods were found to be errors and have been fixed; all of the remaining neighborhoods were created by the townships to deal with specific assessment issue (i.e. Special sanitary districts, condominium splits). The table below illustrates how re-trending has affected residential neighborhoods in each township.

| Township | # Neighborhoods Original 2006 | # Neighborhoods Revised 2006 | Added | Deleted |
|-------------|----------------------------------|---------------------------------|-------|---------|
| Cass | 4 | 4 | 0 | 0 |
| Center | 67 | 70 | 6 | 3 |
| Clinton | 5 | 6 | 1 | 0 |
| Coolspring | 128 | 127 | 0 | 1 |
| Dewey | 2 | 2 | 0 | 0 |
| Galena | 4 | 6 | 2 | 0 |
| Hanna | 2 | 2 | 0 | 0 |
| Hudson | 3 | 5 | 2 | 0 |
| Johnson | 1 | 1 | 0 | 0 |
| Kankakee | 17 | 18 | 1 | 0 |
| Lincoln | 5 | 5 | 0 | 0 |
| Michigan | 121 | 124 | 10 | 7 |
| New Durham | 6 | 6 | 0 | 0 |
| Noble | 3 | 3 | 0 | 0 |
| Pleasant | 15 | 15 | 0 | 0 |
| Prairie | 1 | 1 | 0 | 0 |
| Scipio | 14 | 14 | 0 | 0 |
| Springfield | 6 | 10 | 4 | 0 |
| Union | 4 | 4 | 0 | 0 |
| Washington | 7 | 7 | 0 | 0 |
| Wills | 3 | 3 | 0 | 0 |
| Totals | 418 | 433 | 26 | 11 |

Vertical-inequity in Hanna & Pleasant Townships vacant residential – Spearman Rank test

The DLGF notes that vertical inequity exists for both Hanna and Pleasant Townships vacant residential classes. However, as the revised ratio study indicates, the PRD for the Hanna and Pleasant are 1.02 and 1.01, respectively. These findings are within IAAO standards. Further, Nexus Group calculated the Spearman Rank test for both of these vacant residential strata and found that indeed no vertical inequity exists.